

FIG. 1

ATGGAGACTTATTCCTTGTCTTTGGGTAATCAATCAGTGGTGGAACTAACATAGCAATA
CAGTCAGCAAATTTCTCTTCAGAAAATGCGGTGGGGCCTTCAAATGTTTCGCTTCTCTGTG
CAGAAAGGAGCTAGCAGTTCTCTAGTTTCTAGTTCAACATTTATACATACAAATGTGGAT
GGCCTTAACCCAGATGCACAGACTGAGCTTCAGGTCTTGCTTAATATGACGAAAAATTAC
ACCAAGACATGCGGCTTTGTAGTTTATCAAAATGACAAGCTTTCCAATCAAAAACTTTT
ACAGCTAAATCGGATTTTAGTCAAAAAATTATCTCAAGCAAACTGATGAAAATGAGCAA
GATCAGAGTGCTTCTGTTGACATGGTCTTTAGTCCAAAGTACAACCAAAAAGAATTTCAA
CTCTATTCTTATGCCTGTGTCTATTGGAATTTGTCAGCGAAGGACTGGGACACATATGGC
TGTCAAAAAGACAAGGGCACTGATGGATTCTGCGCTGCGCTGCAACCATACTACTAAT
TTTGCTGTATTAATGACTTTCAAAAAGGATTATCAATATCCCAAATCACTTGACATATTA
TCCAACGTTGGATGTGCACGTGTCTGTTACTGGTCTGGCTCTCACAGTTATATTTTCAGATT
GTCACCAGGAAAGTCAGAAAAACCTCAGTAACCTGGGTTTGGTCAATCTGTGCATATCA
ATGTTGATTTTCAACCTCCTCTTTGTGTTTGAATTGAAAACCTCCAATAAGAAGTTGCAG
ACAAAGTGATGGTGACATCAATAATATTGACTTTGACAATAATGACATACCCAGGACAGAC
ACCATTAACATCCCGAATCCCATGTGCACTGCGATTGCCGCCTTACTGCACTATTTTCTG
TTAGTGACATTTACCTGGAACGCACTCAGCGCTGCACAGCTCTATTACCTTCTAATAAGG
ACCATGAAGCCTCTTCCTCGGCATTTCACTCTTTTCACTCATTAATTGGATGGGGAGTC
CCAGCTATAGTAGTGGCTATAACAGTGGGAGTTATTTATTCTCAGAATGGAAATAATCCA
CAGTGGGAATTAGACTACCGGCAAGAGAAAATCTGCTGGCTGGCAATTCAGAACCCAAAT
GGTGTATATAAAAAGTCCGCTGTTGTGGTCATTTCATCGTACCTGTAACCATTATCCTCATC
AGCAATGTTGTTATGTTTATTACAATCTCGATCAAAGTGCTGTGGAAGAATAACCAGAAC
CTGACAAGCACAAAAAAGTTTTCATCCATGAAGAAGATTGTTAGCACATTATCTGTTGCA
GTTGTTTTTGAATTACCTGGATTCTAGCATACCTGATGCTAGTTAATGATGATAGCATC
AGGATCGTCTTCAGCTACATATTCTGCCTTTTCAACACTACACAGGGATTGCAAATTTTT
ATCCTGTACACTGTTAGAACAAAGTCTTCCAGAGTGAAGCTTCCAAAGTGTTGATGTTG
CTATCGTCTATTGGGAGAAGGAAGTCATTGCCTTCAGTGACGCGGCCGAGGCTGCGTGTA
AAGATGTATAATTTCTCAGGTCATTGCCAACCTTACATGAACGCTTTAGGCTACTGGAA
ACCTCTCCGAGTACTGAGGAAATCACACTCTCTGAAAGTGACAATGCAAAGGAAAGCATC
TAG

FIG.2

METYSLSLGNQSVVEPNIAIQSANFSSSENAVGPSNVRFVQKGASSSLVSSSTFIHTNVD
GLNPDAQTELQVLLNMTKNYTKTCGFVVYQNDKLFQSKTFTAKSDFSQKIISSKTDENEQ
DQSASVDMVFSPPKYNQKEFQLYSYACVYWNLSAKDWDITYGCQKDKGTDGFLRCRCNHTTN
FAVLMTFKKDYQYPKSLDILSNVGCALSVTGLALTVIFQIVTRKVRKTSVTWVLVNLCS
MLIFNLLFVFGIENSNNLQTSDDINNDIFDNDIPRDTINIPNPMCTAIAALLHYFL
LVFTFWNALSAQLYYLLIRTMKPLPRHFILFISLIGWGPVPAIVVAITVGVIYSQNGNNP
QWELDYRQEKICWLAIPENGVKISPLLWSFIVPVTIILISNVVMFITISIKVLWKNQON
LTSTKKVSSMKKIVSTLSVAVVFGITWILAYLMLVNDDSIRIVFSYIFCLFNTTQGLQIF
ILYTVRTKVQSEASKVLMMLSSIGRRKSLPSVTRPRLRVKMYNFLRSLPTLHERFRLL
TSPSTEEITLSESDNAKESI

FIG. 3

CCACGCTTTCCCTCCCTGACCACAGGTGATCCGCCTGCCTCAGCCTCCCGAAGTGCAGGG
ATTACAGGCGTAGTAAGTAAGCCACCACACCTGGCCGCCACTCTTATTTTAAAAGTTGA
CATCAGTTTGTGAAAAAGGACTGTTGTTTTCATCAAATTTTCAGCAAATGATGATCAATAGC
ACATTAAAAATGGCTTCATCTTTGTGGAAGTTTGTACTGGATATAGATCCCTGACATTTG
AGACCAAAGGAAAGCCTCTTGATGGTGTAACTGGACCAGAATGAAGAGAAAGAACTATT
ATCAAAGACCCTTGGAACAGGAACTCCAAACCTGATGCGGGTCTCAGGGCAGTATCTA
TGAGCAGGTGAAATAGAAAGTACATCTAACTAGATGTTTTCATGCAGATTAAATTATT
TTGACCAAAGTTGTACCCAAATGCACATGTCATGGAAGAGCTAACACTAGGGGACAAGCAA
GGGGGAGGAAGAGGAAACCAACCTTTATGTACAGCCTTTTCATGTGCCTGGCATGTTGCAT
ATGTTATCACATTTAATCCTTATAAACTTCTGTGAGTTGAATGTTATTTCCCATATTATA
AATAATTATAGCCAATAACACTTACTAATTGTTGAGCACCTACTGCATGCCAAATATTGT
GCCAAATATTAATGTATTTATTAGTTTATCATATTTAATTTTATAACACCATAAATAGG
TATTAATGTACACATTTTATAGATGAGGAAAATGTGGTCTGAGAGGTGAAGCATTTTGTC
CTAGTGATCACAGCTAAAAAGTGATAGAGCTGTTCTTTATTTTAAAGTTCACATTGTACT
ACCCTGGCTCCCTAATCACAGATGGGCAGGGTAGGGGTTGGGTGGGGACAGAAGTTGGAG
AGTGGATGTGGCTGCCAACCAACAAGTTGTGCCAACCCACAGATTGAGGAAAGATGCTA
AATTTGGAATCTGGCAAACCAAGTGTGTTGTTCTTAGCTCTGCCACTTCTAAGCTGTGTGA
AACTTGGTTGAGGTCCCTAATCTCTCTGAGGGTGAACAACCTCACAAAGTTGTTTTGCTT
ATTAAATGTGATAACACCTGTAAACATCTAACAGAGTGCCTAGCACATAGCAGGGATCTA
GCAATTGAATTAGGGTTATTTGTTTCTGTCTACTGATTGGGTATTGTTTCTGACACTTAC
CCAAGTGTGAATAGCCTATAACACTGGTATAATTTGTGAAATGATGCTGCCATCTAGTGA
AAACCAAGACACACACACACACACACACACACACATACACACACACGTGCGCGCGC
ATGGACACCCAGCTTCACCAATGACAATATGGATTGGCATGTTTTAGCCTCACAAACACAG
AGCCCTGGGGCTAATGGCACCTAGAGAGGTCATCTCGGCCAGTGCCTTCCAAACTACCA
GTGCTGAAAAGCCAGTTCAAAAAATTTTGAACCCATTGCACACCAATATTTTGTGAAAT
ACCATAAAAAATAAATTAAGTGGAAAAATGAAATAAAAAATATGTATAAAATACAAACAAA
ATTTTAGAACTGTTAGATTCAACAGCAAAAAATTTGCTGTATACATCTCTGACCAATTGCT
TTCAGTTTCTGTGCTTATCTCTCTACGACCTTTGTAACACACAGTGAACCAGCGCTGGCC
CATGGATACACTCTAGTAGCCCCAATCTAGCTAAGGCAGCCCCTTATAGTTAATCAATCC
TGTCAAACAGGAAAGGCTGGCAAAACCACTGGTCTGCATGTACTTTGTCTTTACACAAG
GAAGGATGCAAACGTGGAAAACCTGAGTGGACATGGTGTTCAGGAGATTGAGGCTCAGCTA
AATTCAGCTTATTTACCTGCAGTTGCTTACAAAGTGTGTTGGACATAATTGTGTAAAGCT
AGGGTTTTTTTTCTGGTTTTTAAAAACAGGTAAAGGATGTCACAGCACCCTTAATAACAT
TTCTTCTGAAGTCCAGATTTTAAACATCTGATGCCAATAAATTAAGTGTGAGAACATCAC
TAGTGCTACGCGAGTGGTTGGACAGATATTCAACACTTCCAGAAATGCTTACCTGAGGC
AAAGAAAGTTGCCATAGTAACAGTGAGTCAACTCCTAGATGCCAGTGAAGATGCTTTTCA
AAGAGTTGCTGCTACTGCTAATGATGATGCCCTTACAACGCTTATTGAGCAA

FIG. 4

ACAGTAAAACTTACCTGTTGTGGTCTTTTAAATCACCTCGTTTGAGTTTTATCTGTTTCT
CTCCTTTATTTCCCAGTCCTCTCAGAAAGTCTTCCTCAATGTATTTTGCTCAGGATTAAG
AATTAGATAAAACCTGTTGTTTATTATTATTCGGCATAATGGACTTGGTAGTTTTTCTAT
TTTTCAATAGATTTGTACTTGAATAAGGTGAAGAATTTACACAAACATAACAAGAGTACCA
TTGTTTCCTTATATCGTTAAATCTTTGTGACACACTTTGACAAAAATGTAGAACCTATAAC
AAATTCTTTTACAAGTTACTATAAAGGACACAAAGAGAAAACCTTTACCTTCCAGAACAAA
ATGACTCCTGATGAACAGTGTGTGGGATTTGCTTGTATGTATTAACTTTTGACCTCTG
AAAAAAAAAAAAAAAAAAAAAAAAAG

FIG. 5

1	METYSLSLGN	QSVVEPNIAI	QSANFSSENA	VGPSNVRFSV	QKGASSSLVS
51	SSTFIHTNVD	GLNPDAQTEL	QVLLNMTKNY	TKTCGFVVYQ	NDKLFQSKTF
101	TAKSDFSQKI	ISSKTDENEQ	DQSASVDMVF	SPKYNQKEFQ	LYSYACVYWN
151	LSAKDWDYTG	CQKDKGTDGF	LRCRCNHTTN	FAVLMTFKKD	YQYPKSLDIL
201	<u>SNVGCALSVT</u>	<u>GLALTVIFOI</u>	<u>VTRKVRKTSV</u>	<u>TWVLVNLCS</u>	<u>MLIFNLLFVF</u>
251	<u>GIENSNNKLNQ</u>	<u>TSDGDINNID</u>	<u>FDNNDIPRTD</u>	<u>TINIPNPMCT</u>	<u>AIAALLHYFL</u>
301	<u>LVFTFWNALS</u>	<u>AAQLYLLIR</u>	<u>TMKPLPRHFI</u>	<u>LFISLIGWGV</u>	<u>PAIVVAITVG</u>
351	<u>VIYSQNGNNP</u>	<u>QWELDYRQEK</u>	<u>ICWLAIPEN</u>	<u>GVIKSPLLWS</u>	<u>FIVPVTIILI</u>
401	<u>SNVVMFITIS</u>	<u>IKVLWKNNQN</u>	<u>LTSTKKVSSM</u>	<u>KKIVSTLSVA</u>	<u>VVFGITWILA</u>
451	<u>YLMLVNDDSI</u>	<u>RIVFSYIFCL</u>	<u>FNTTOGLOIF</u>	<u>ILYTVRTRKVF</u>	<u>QSEASKVLML</u>
501	LSSIGRRKSL	PSVTRPRLRV	KMYNFLRSLP	TLHERFRLL	TSPSTEEITL
551	SESDNAKESI				

FIG. 6A

O88925 ~~~~~~
O88927 MCPPQLFILMMLLAPVVHGGKHNERHPALAAPLRHAEHSPGGPLPPRHLLQQPAAERSTA
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 ~~~~~~MATASTEISEFSEAIESTFDLDFTAHTQTEIIGTYWNLRLALLRL

O88925 ~~~~~~MCPPQLFILMMLLAPVVHAFSRAPIPMAVVRRELSCESYPTELRC
O88927 HRGQGPRGTARGVRGPGAPGAQI.....AAQAFSRAPIPMAVVRRELSCESYPTELRC
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 HRSIVAIDHVSQKSFWEYRNHWIQLSMLVSNQNVNLCQSNICQNGGTCLVASVPATATC

O88925 EGTDVIMIESANYGRITDDKICSDSPAQMENIRCYLPDAYKIMSQRNNRTQCAVAGPDV
O88927 EGTDVIMIESANYGRITDDKICSDSPAQMENIRCYLPDAYKIMSQRNNRTQCAVAGPDV
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 EKNSIYYMGS CYVFDITLRLNWNDAALYCNNMNSATLPLVESAEQAFFAGYLQAMIPSNP

O88925 FPDPCPGTYKYLEVQYECVPYKVEQKVFELCPGLLKGVYQSEHLFESDHQSGAWCKDPLQA
O88927 FPDPCPGTYKYLEVQYECVPYKVEQKVFELCPGLLKGVYQSEHLFESDHQSGAWCKDPLQA
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 PADMRPPDGIWTAVRGVNNVTRASWVYYPGSFL..VTDTFWAPQEPNIYVNVNDVCVAL

O88925 SDKIYMPWTPYRTDITLLEYSSKDDFIAGRPTTTYKLPHRVDGTGFVVYD GALFFNKERT
O88927 SDKIYMPWTPYRTDITLLEYSSKDDFIAGRPTTTYKLPHRVDGTGFVVYD GALFFNKERT
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 QSDSRYREWIT.ALCITILKYTVCKVAPTQIQAKYVAQCSCPNGYGGQTCETQSTTNQQAS

O88925 RNIVKFDLRLTRIKSGEAI IANANYHDTSPYRWGGKSDIDLAVDENGWLWVIYATEQNNGKI
O88927 RNIVKFDLRLTRIKSGEAI IANANYHDTSPYRWGGKSDIDLAVDENGWLWVIYATEQNNGKI
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 TQRTCGSNDFQFSCPNDQTITVDFASFGAQQGSIITSPPDALLOQIVQKVN AETKKT VNF

O88925 VISQLNPYTLRIEGTWDTA YDKRSASNAFMICGILYVVVKS VYEDDDNEATGNKIDYIYNT
O88927 VISQLNPYTLRIEGTWDTA YDKRSASNAFMICGILYVVVKS VYEDDDNEATGNKIDYIYNT
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 WIGTPNNCOLLMVTGSSTISYQCPSSPSSTANVICSTVPQSTASVSARPTQSA.....PV

O88925 DQSKDSLVDVPFPNSYQYIAAVDYNPRDNLLYVWNNYHVVKYSLDFG PLDSRSGPVHHGQ
O88927 DQSKDSLVDVPFPNSYQYIAAVDYNPRDNLLYVWNNYHVVKYSLDFG PLDSRSGPVHHGQ
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 DPVSQTMARREVYTGVOPIASALGGQSKKTNRLNNICQTKIG...APLSLFLFSRNEVI

O88925 VSYISPPIHLDSDLERPPVRGISTTGPLGMGSTTTSTTLRTTTWNLGRSTTPSLPGRNR
O88927 VSYISPPIHLDSDLERPPVRGISTTGPLGMGSTTTSTTLRTTTWNLGRSTTPSLPGRNR
Q9Y3K0 ~~~~~~
HGPRBMY6 ~~~~~~
Q10922 TGFVCISLISAS PQIIYYLCAMSLICHPSVPDSINKPRYCKKEKKDG.ITYEQTRACMLH

FIG. 6B

088925 STSTPSPAIEVLDTHTLPSAASQIPAMEESCEAVEAREIMWFKTRQGOVAKQSCPAGTI
 088927 STSTPSPAIEVLDTHTLPSAASQIPAMEESCEAVEAREIMWFKTRQGOVAKQSCPAGTI
 Q9Y3K0 ~~~~~~
 HGPRBMY6 ~~~~~~
 Q10922 EQPCPDQONVEGTVTRYCNCQTAKWETPDTINCTHRWVAEMETAIKDNQPVEDISSTVNR

 088925 GVSTYLCCLAPDGIWDPQGPDLNSCSPWVNHIQKLSGETAANIARELAEQTRNHLNAG
 088927 GVSTYLCCLAPDGIWDPQGPDLNSCSPWVNHIQKLSGETAANIARELAEQTRNHLNAG
 Q9Y3K0 ~~~~~~
 HGPRBMY6 ~~~~~~
 Q10922 QLKSTLERTLFGDITGTVRLSNDMLSLARNQFSVLNDRNLRENKARNFTENLGSGDQL

 088925 DITYSVRAMDQVLGLLDVQLRNLTGGKDSAAARSLNKLQKRERSCRAYVOAMVETVNNLL
 088927 DITYSVRAMDQVLGLLDVQLRNLTGGKDSAAARSLNKLQKRERSCRAYVOAMVETVNNLL
 Q9Y3K0 ~~~~~~
 HGPRBMY6 ~~~~~~
 Q10922 LSPVAATVWDQLSSTIRIQHASKLMSVLEQSVLLLGDMYTDQKLNLOYINWAMEVERSEP

 088925 QPQALNAWRDLTTSQDLRAATMLLDTVESAFVLADNLLKTDIVRENTDNIQLEVARLST
 088927 QPQALNAWRDLTTSQDLRAATMLLDTVESAFVLADNLLKTDIVRENTDNIQLEVARLST
 Q9Y3K0 ~~~~~~
 HGPRBMY6 ~~~~~~METYSLSLGNQSVVEPNIAIOSANFSSSEN
 Q10922 EVQTFGAASPNVQDDMGMMRYMAAAPAPQPETNTTTFMPSLKLSPITITPSASLLSSL

 088925 EGNLEDLKFPEPNTGHGSTIQLSANTLKQNGRNGEI..RVAFVLYNNLGPYLSTENASM..
 088927 EGNLEDLKFPEPNTGHGSTIQLSANTLKQNGRNGEI..RVAFVLYNNLGPYLSTENASM..
 Q9Y3K0 ~~~~~~MDFESQVMDPLASVILPPNLENLSPEDSVILVR
 HGPRBMY6 AVGPSNVRESVQKGCASSSL.VSSSTFIHTNVDG.LNPDAQTELOVLL..NMTKNYTKTCG
 Q10922 A.SPTPV.....ACGGPSI.LSS..FQDDTPVG.M...ASTP.....NLNRNPVK.LG

 088925KLGT.EAMSTNHSVIVNSPVITAAL.NKEFSNKVYLADPVVFTVKHKKQSB
 088927KLGT.EAMSTNHSVIVNSPVITAAL.NKEFSNKVYLADPVVFTVKHKKQSB
 Q9Y3K0 RAQFTFFNKTLGLFQDVGPKRTLV.SYVMACSIGNITION...LKDPVQIKIKHTR.TQE
 HGPRBMY6 FVVYQN.DKL..FQSKTFTAKSDFSQKTISSKTDENEQDQSASVD..MVFSPIKYNQKEFQ
 Q10922 YYARAGFGQL..LNNN..NDHTLINSQVIGASTIONATQSVTLVPVDHPVTFTFQHTTK.G

 088925 NENPNCSFWSYSKRTMTGYWSTQGC.RLLTTNKTHHTCSCNHLTNFAVLM.AHVEVKHSD
 088927 NENPNCSFWSYSKRTMTGYWSTQGC.RLLTTNKTHHTCSCNHLTNFAVLM.AHVEVKHSD
 Q9Y3K0 VHHPICAFWDLNKNKSGFGWNTSGCVAHRSDASETVCLCNHFTHFGLMDLPRASQLD
 HGPRBMY6 LYSYACVYWNLSAKD....WDITYGCQKDKGIDGF.LRCRCNHTTNFAVLMTF....KKD
 Q10922 VSNPRCVYWDLMESK....WSTLGCTLIATSSNS.SQCSCTHLTSFALLMDISGQVGRLS

 088925 AVHDLILLDVITWVGILLSLVCLLICIFTFCCFRGLQSD.RNTIHKNLCSISFVAELLFLI
 088927 AVHDLILLDVITWVGILLSLVCLLICIFTFCCFRGLQSD.RNTIHKNLCSISFVAELLFLI
 Q9Y3K0 ARNTKVLTFISYIGCGISALFSAATLLTYVAFEKLRRDYPISKILMNLSTALLFLNLLFLI
 HGPRBMY6 YQYPKSLDILSNVGCALSVTGLALTIVFQIVTRKVRKTSVTWVLVNLCSIMLTFNLLFVF
 Q10922 GGLASALDVVSTIGCAISIVCLALSVCVFTFFRNQNVNRS.THRNLCLCLLAEVFEVI

 088925G.INRTDQPI.....ACAVFAALLHFFFLAAFTWMFLE
 088927G.INRTDQPI.....ACAVFAALLHFFFLAAFTWMFLE
 Q9Y3K0DGWITSFNVDG.....LCIAVAVLLHFFFLAAFTWMFLE
 HGPRBMY6 GIENSNNKLNQTSDDINNIDFDNNDIPRTDTINIPNPMCTATAALLHFFFLAAFTWMFLE
 Q10922 GMDRT.....GN.....RTG.....CGVVAILLHFFFLAAFTWMFLE

FIG. 6C

O88925 GVQLYIMLVEVFSEHSRRKY..FYLVGYGMPALIVAVSAVD....Y..RSYGT...D
 O88927 GVQLYIMLVEVFSEHSRRKY..FYLVGYGMPALIVAVSAVD....Y..RSYGT...D
 Q9Y3K0 AIHMYIALVKVENT.YIRRYILKFCITIGWGLPALVVSIVLASRNNNEVYGKESYKKEKGD
 HGPRBMY6 AAOLYLLLRRTMK.PLPRHFILFISLIGWGPATVVAITVGVVIYSQNGNPNQWELDYRQE
 Q10922 GYOLYMLIQVEE.PNRTRIFLYY.LFCYGTPAVVVAISAGI.....KWE.DYGTD

O88925 KVCWLRD.....TYFIWSFIGPATLIIMLNVIIFLGIALYKMF.....HHTAILKPES
 O88927 KVCWLRD.....TYFIWSFIGPATLIIMLNVIIFLGIALYKMF.....HHTAILKPES
 Q9Y3K0 EFCWIQDP.....VIFVYTCAGYFGVMFFLNIAFIVVMVQICGRNGKRSNRTLREE.
 HGPRBMY6 KICWLAIPENGVIKSPLLWSFIVPVTHILISNVVMFITISIK.VLWKNQNLSTTKKVS
 Q10922 SYCWID.....TSTPTIWAFFVAPIIVIIAANII.FLLIALKVVLSVQSRDRTKWGRII

O88925 GCLDNIKSWVIGATAILLCLLGLTWAFG.LMYINESTV..IMAYLFTIFNSLQGMFIFIFH
 O88927 GCLDNIKSWVIGATAILLCLLGLTWAFG.LMYINESTV..IMAYLFTIFNSLQGMFIFIFH
 Q9Y3K0 .VLRNLRS...VVSITFLLGMTWGF.A.FFAWGPLNT..PFMYLFSIFNSLQGLFIFIFH
 HGPRBMY6 SMKK.....IVSTLSVAVVFGITWILAYLMLVNDDSIRIVFSYIFCLFNTTQGLQIFILY
 Q10922 CWLK.....GSATL..LCLLGLTWIFGFLTAVKGGT.GTAFAWIFTILNCTQGLFIFIVLH

O88925 CVLQK..KVRKEYGKCLRTHCCSGKSTESSIGSGKTSGRTPGRYSTGSQSRIRRMWNDT
 O88927 CVLQK..KVRKEYGKCLRTHCCSGKSTESSIGSGKTSGRTPGRYSTGSQSRIRRMWNDT
 Q9Y3K0 CAMKE..NVOKOW...RQHLCCGRFRLAD...NSDWSKTATNIKKSSDNLGKSLSSS
 HGPRBMY6 TVRTKVFQSEASKVLMMLSSIGRRKSLPSVTRPRLRVKMYNFLRSLPTLHER.FRLLETS
 Q10922 VVLNE..KVRASIVRWLRTGI...CCLPETSS.....AAYN.SRSFSLSRORILNMIVKN

O88925 VRKQSESSFITGDINSSAS..LNREPY.....RETSM..GVKLN....IAYQTGASE...
 O88927 VRKQSESSFITGDINSSAS..LNREGLLNNA.RDTSVMDTLPNGNHGNSYSIAGGEYLS
 Q9Y3K0 .SIGSNSTYLTSSKSKSSSTTYFKRNSHTDSASMDKSLSKLAHADGDQTSI..IPVHQVID
 HGPRBMY6 PSTEEITLSESDNAKESI~
 Q10922 GHSYPSTASTDDKEBKQLTPITKTTDWLSRLPNQDSVSIPESNFNNLNGTLENSNLNSAEI

O88925 QCQGYKCHGYSTTEW~
 O88927 NCVQIIDRGYNHNETALEKKILKELTSNYIPSYLNNHERSSEQNRNMNMKLVDNLGSGSE
 Q9Y3K0 KVKGY.CNAHSDN...FYKNIIIMSDTFSHSTKF~
 HGPRBMY6 ~
 Q10922 KEEDEIPELRRRVTVDLNPMIVSNNEIERMSHASSDPRGSQIIIEVTAVEKKAPVKRIKFP

O88925 ~
 O88927 DDAIVLDDAASFNHEESLGLLELIHEESDAPLLPPRVYSTDNHQPHYSRRRLPQDHSESF
 Q9Y3K0 ~
 HGPRBMY6 ~
 Q10922 LGAKQSERGSQHRTKAKHGTGTLVSPWHIVTAAHLIGISEDPLPDCDTGNLREAYFVRDY

O88925 ~
 O88927 FPLLTDHEATEDPQSPHRDSLTSMPALAGVPAADSVTTSTQTEAAAAKGGDAEDVYYKSM
 Q9Y3K0 ~
 HGPRBMY6 ~
 Q10922 KNFVAFVNVTCAPPEMCKGLHRKDMFKPLAISKSLYIRKGYVGDGCIDRESFNDAIVFELE

O88925 ~
 O88927 PNLGSRNHVHPLHAYYQLGRGSSDGFIVPPNKDGASPEGTSKGPAPHLVTSL~
 Q9Y3K0 ~
 HGPRBMY6 ~
 Q10922 EPIEFKSDIFPACLPAPKIPRIRETGYKLFYGRDPSDSVLESGLKSLYSFVAECSD

FIG. 6D

O88925	~~~~~
O88927	~~~~~
Q9Y3K0	~~~~~
HGPRBMY6	~~~~~
Q10922	FPYGGVYCTSAVNRGLSCDGDGSGGVVRTSDTRNVQVLVGVL SAGMPCPELYDTHNRQRQ
O88925	~~~~~
O88927	~~~~~
Q9Y3K0	~~~~~
HGPRBMY6	~~~~~
Q10922	QRRQLTQETDLLVDVSAHVDDFFCTCCGMCS

FIG. 7

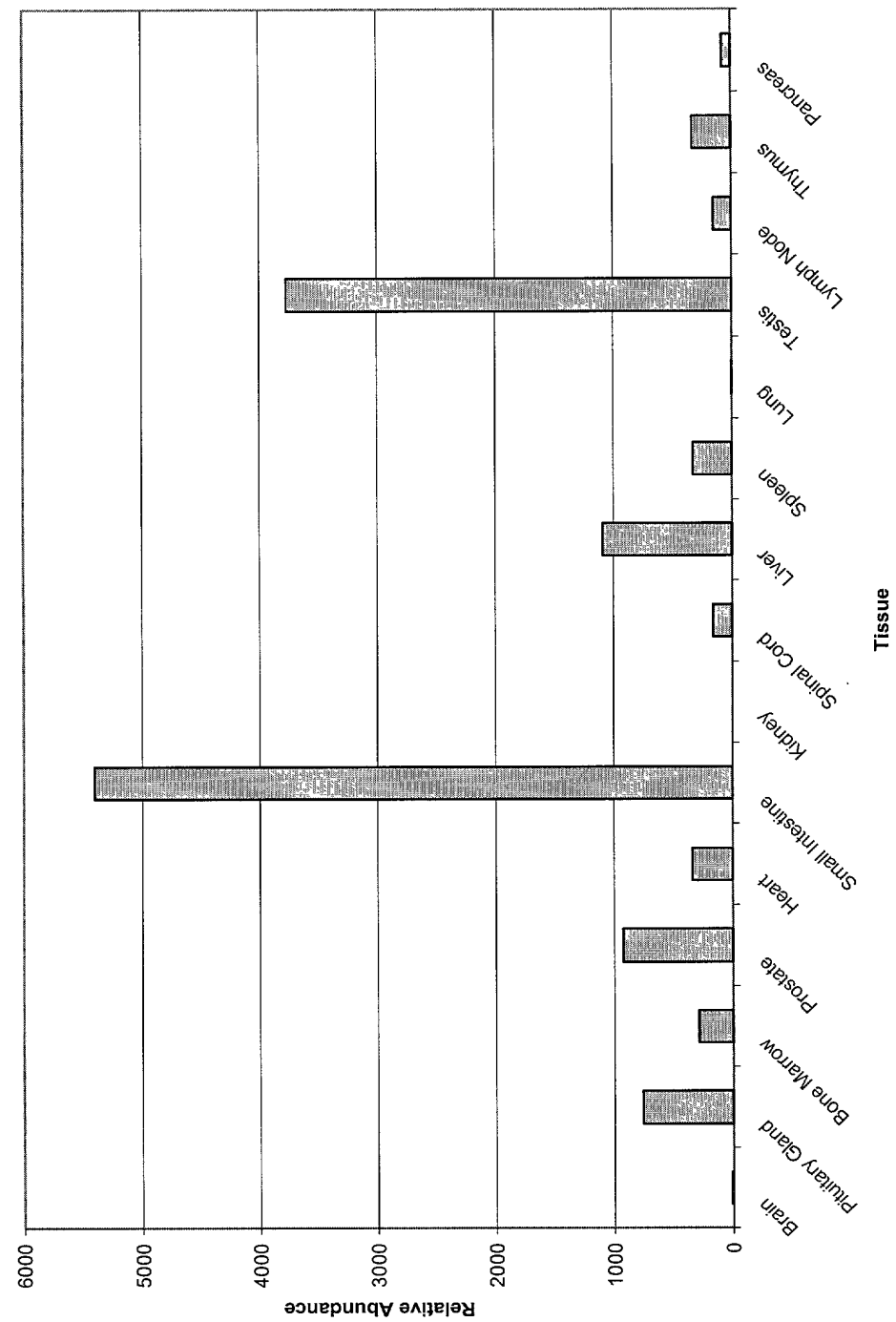


FIG. 8

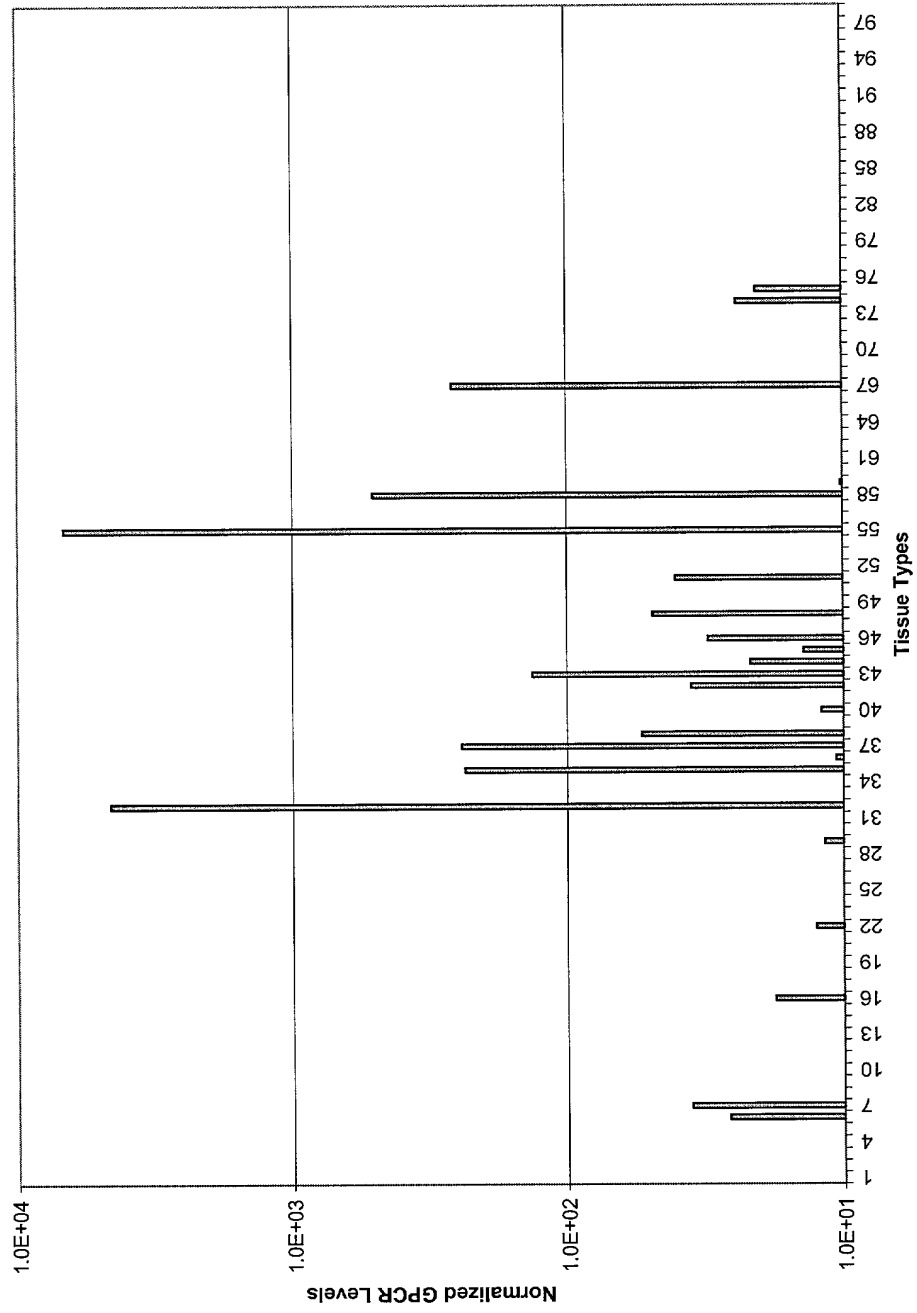


FIG. 9

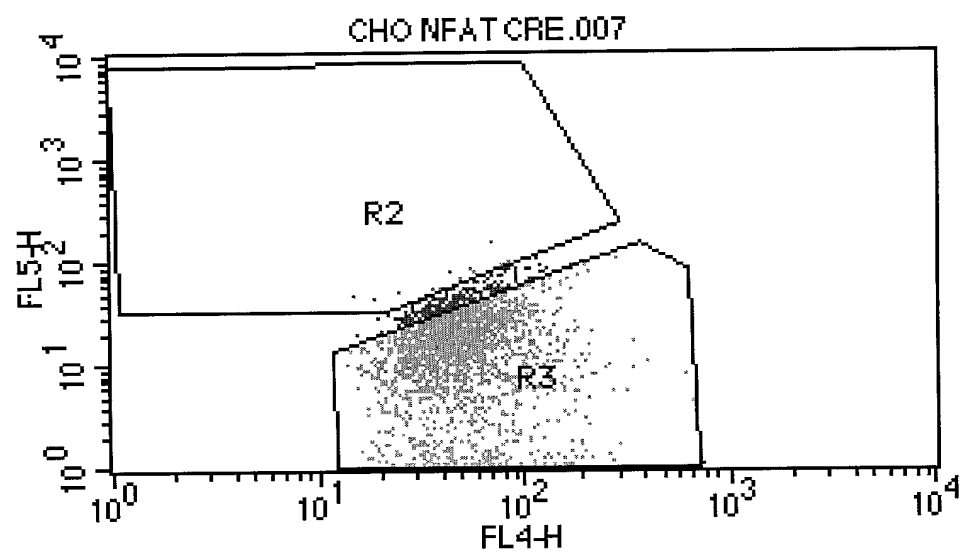


FIG. 10

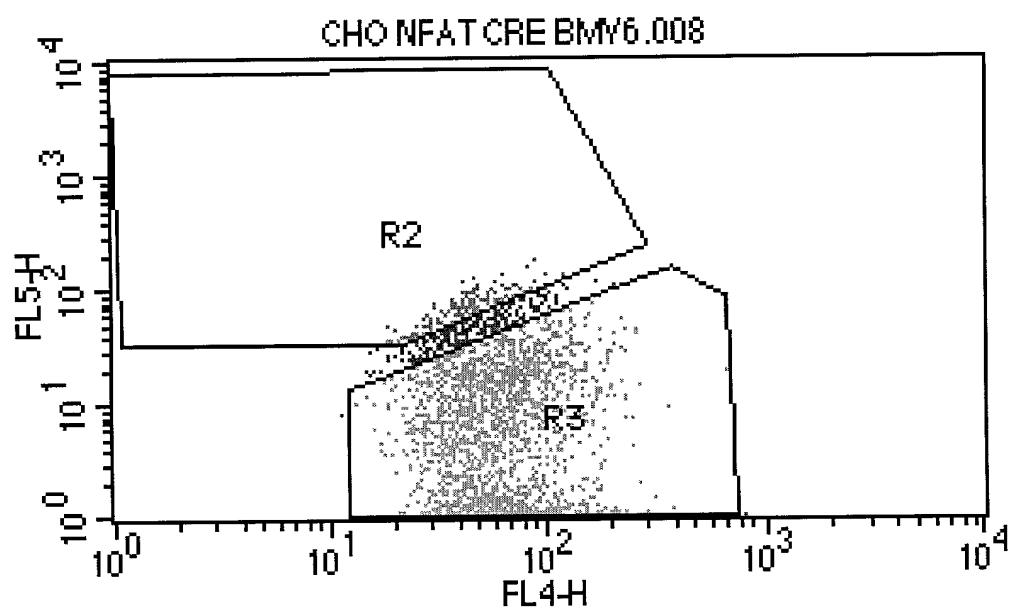


FIG. 11

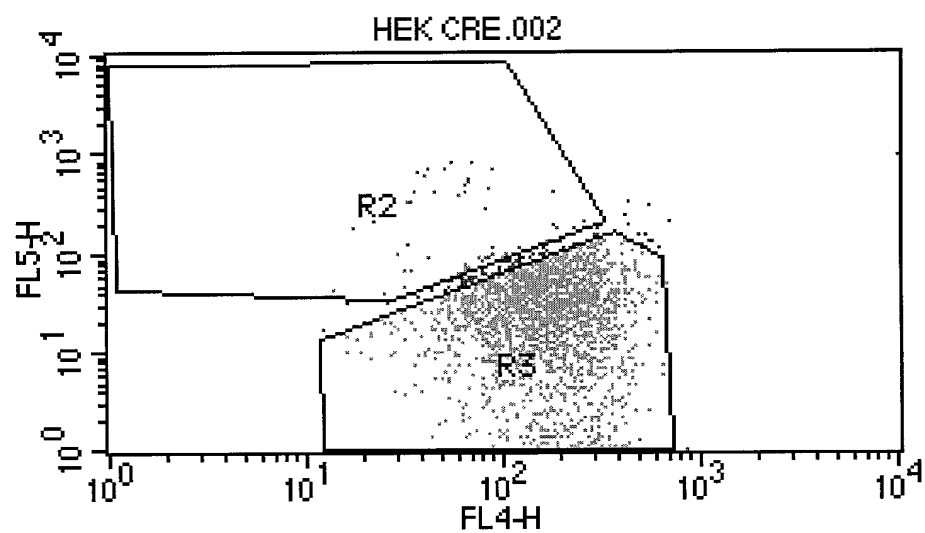


FIG. 12

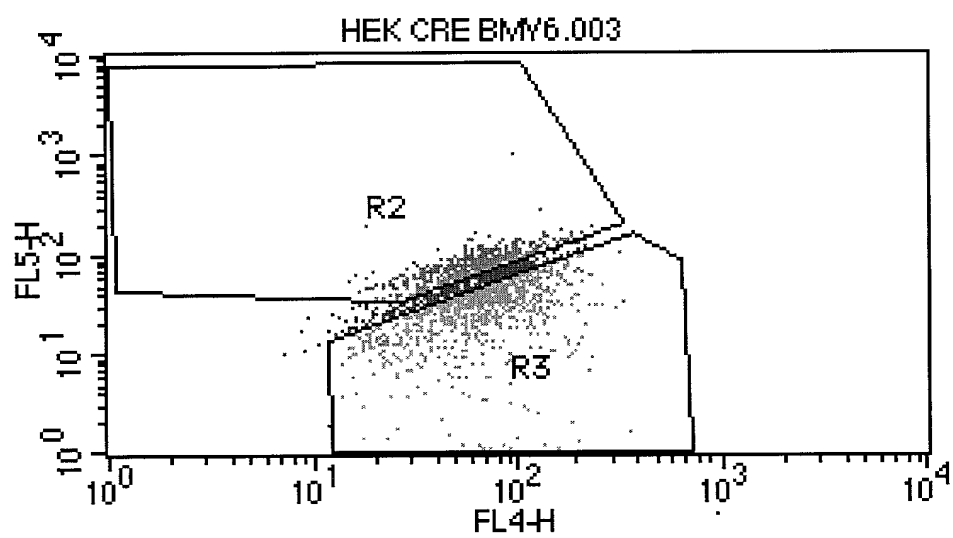


FIG. 13

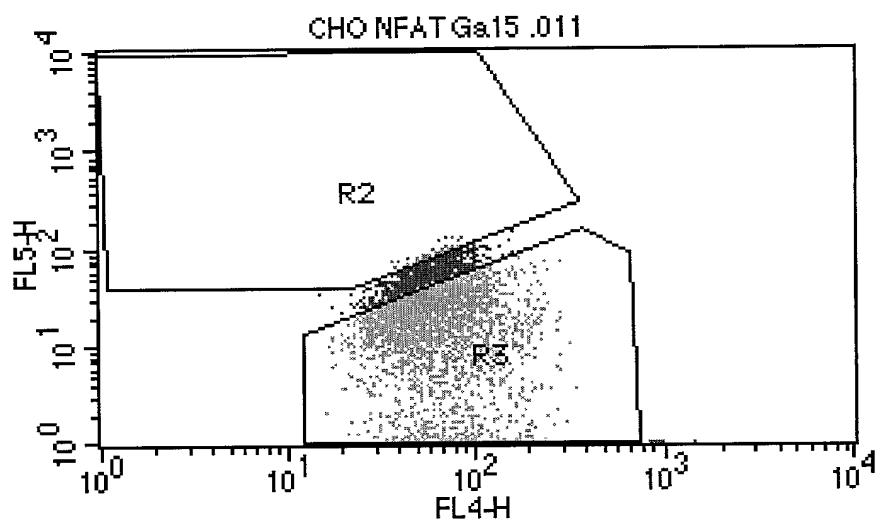


FIG. 14

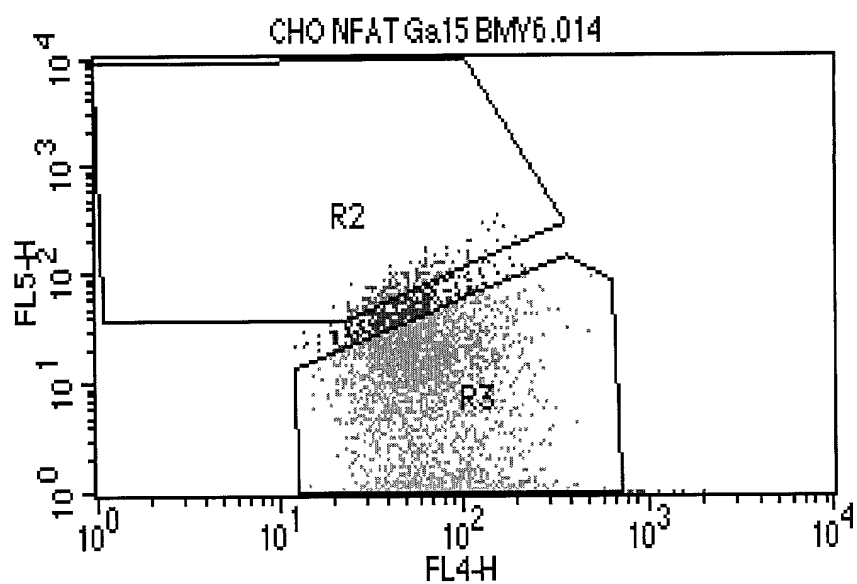
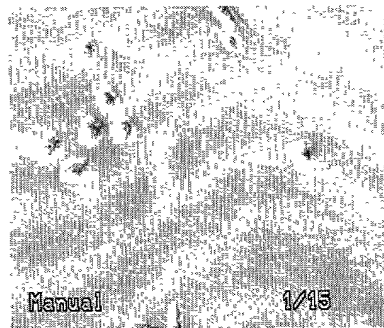
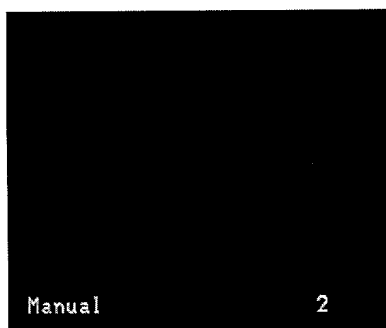
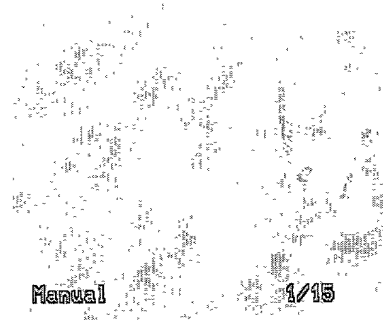
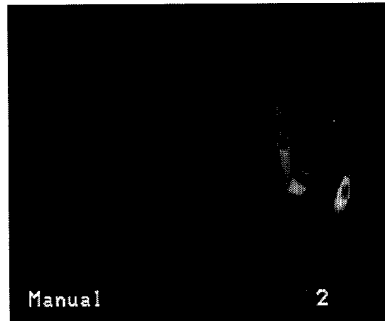


FIG. 15

a. CHO-NFAT G alpha 15 (Fluorescent vs. Bright Field)



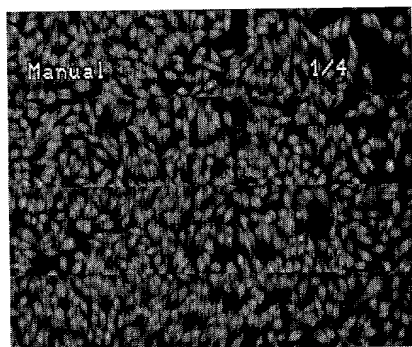
b. CHO-NFAT/ G alpha 15 HGPRBMY6 (Fluorescent vs. Bright Field)



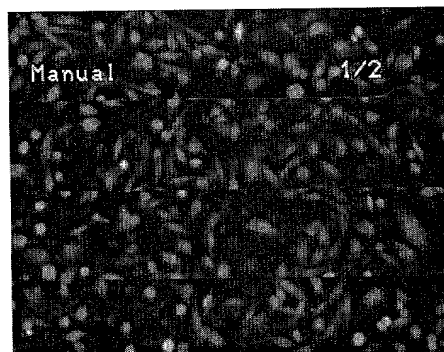
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FIG. 16

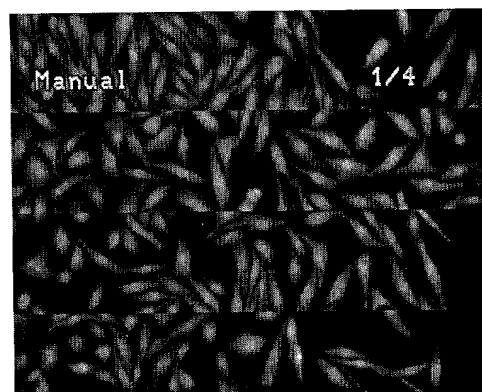
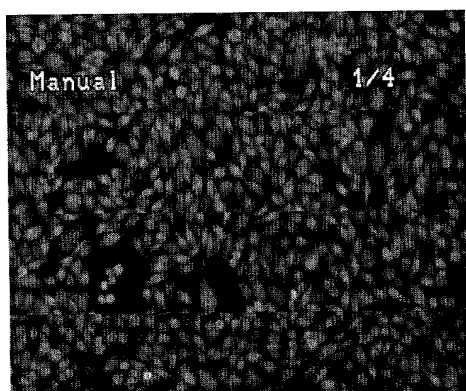
a. CHO-NFAT/CRE



b. CHO-NFAT/CRE + P/T/F



c. CHO-NFAT/CRE oGPCR-Intermediate d. CHO-NFAT/CRE oGPCR High



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